



ROUTE CONCEPT REPORT

ROUTE 281 CORRIDOR

01-LAK-281-KP 0.0/27.4 (PM 0.0/17.0)

All information in this Route Concept Report is subject to change as conditions change and new information is obtained.

I approve this Route Concept Report as an analysis and conceptual long-range guide for Caltrans, our Regional Planning Partners, local entities, and the public.

Approval Recommended:

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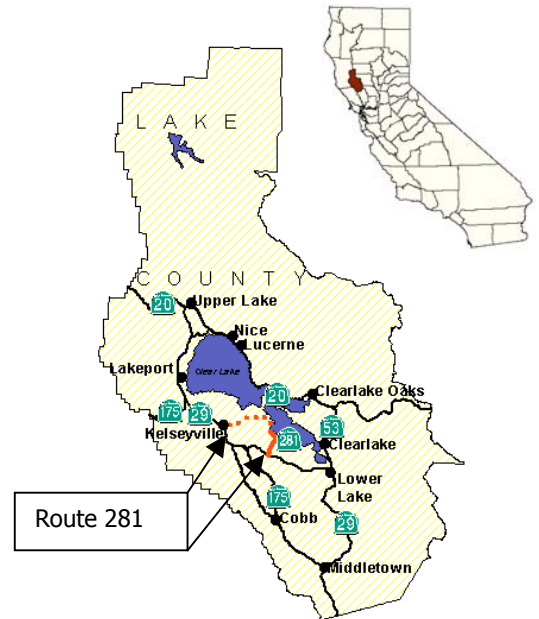
CHARLIE C. FIELDER Date
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Approved:

RICK KNAPP Date
District Director
District 1

JANUARY 2002



ROUTE 281 RCR

ROUTE CONCEPT REPORT

Statement of Planning Intent

The Route Concept Report (RCR) is a planning document which describes the Department's conceptual development options for a given transportation route or corridor. Considering reasonable financial constraints and projected travel demand over a 20-year planning period, the RCR considers transportation facility needs for each route or corridor. The RCR is a tool for implementing interregional and statewide continuity of the State's transportation network, and will be updated as needed as conditions change, or new information is obtained.

Purpose of the Route Concept Report

The objective of the RCR is to have local, regional, and state consensus on route or corridor concepts, improvement goals, and strategies. This document provides concept information only and does not determine policy nor establish a course of action. Route Concept Reports are prepared by District staff in cooperation with local and regional agencies.

Assumptions

The following assumptions form the basis for the development of Route Concept Reports:

1. The relative importance of State highways in the District is generally based on functional classification. In general, higher priority is given to major improvements on principal arterial routes as compared to minor arterials and collectors.
2. State highways with improvement concepts must have realistic concept levels of service. Concept levels of service are not established on State highways that will only be maintained (since improvements would not be made to address level of service concerns).
3. Level of service methodology is based on the 2000 Highway Capacity Manual. No level of service calculations have been made for Class II Highways, as these facilities are used primarily for access.
4. Determinations of future level of service for State highways in District 1 are based in part upon Statewide and Regional forecasts of State highway travel developed by Caltrans.
5. Route concepts apply generally to an entire route or corridor, unless there are overriding considerations (e.g. a major change in function along the route or feasibility concerns).
6. Major projects will be developed to meet design standards acceptable to the Federal Highway Administration in order to receive Federal funding for projects. Otherwise, a "design exception" must be secured during the project development process.
7. Safety projects will be pursued on an on-going basis in order to be responsive to safety concerns as they are identified.
8. No planned or programmed improvements were assumed to be complete in analyzing present and future operating conditions. The Route Concept Report details programmed improvements in the 1998 STIP and the 1998 STIP Amendment.
9. Environmental documents are not required for Route Concept Reports. Individual improvement projects identified in Route Concept Reports will follow established environmental processes when development is proposed as required by law.

ROUTE 281 RCR

ROUTE CONCEPT REPORT

ROUTE 281

01-LAK-281-KP 0.0/27.4 (PM 0.0/17.0)

I. ROUTE CONCEPT AND RATIONALE

FACILITY CONCEPT

The concept for the constructed portion of Route 281 in Lake County is 2-lane conventional highway on existing alignment.

Route 281 is a Rural Major Collector and is designated a Class II Highway under the provisions of the 2000 Highway Capacity Manual, as the facility is used primarily for access and mobility is secondary. While Route 281 is regionally significant linking Lake County roads along the south shore of Clear Lake with Route 29, it cannot compete for capacity improvement funds with other more important routes in the District, generally Principal Arterials.

LEVEL OF SERVICE CONCEPT

No level of service calculations have been made for Class II Highways as these are used primarily for access.

The 2000 Highway Capacity Manual defines Class I and Class II Highways based upon expected use. Mobility is paramount in Class I facilities, while Class II facilities are used primarily for access or for recreational purposes. Class II facilities are not expected to be the subject of capacity improvement projects but will be maintained on existing alignments as necessary.

ROUTE CONCEPT FUNCTION

This Route Concept should serve as a guide for long range planning of Route improvements. It will protect the state's investment in Route 281, while recognizing financial constraints, which will not allow the programming of extensive improvements for all highways.

II. ROUTE MANAGEMENT STRATEGIES

REHABILITATION STRATEGY

The constructed portion of Route 281 should be maintained as necessary.

Based on functional classification, traffic volumes, and maintenance service levels, the constructed portion of Route 281 should be maintained as necessary at its present width and on its present alignment. Portions of the route may be rehabilitated on an exception basis, when maintaining the facility would be less cost effective than rehabilitating it.

SAFETY AND OPERATIONAL IMPROVEMENT STRATEGY

No segment of Route 281 has collision rates greater than 1.5 times (150% of) the statewide average based on similar facilities. The District has an established collision surveillance and monitoring program, which identifies locations with collision concerns and recommends safety improvements when warranted. **Safety improvements at spot locations will be considered as necessary.**

Bridge replacement, storm damage and operational improvement projects will also be considered as necessary. These projects, in addition to safety projects, should be constructed to appropriate State and Federal standards.

In the late 1980's, the Department barrier striped two-lane highways to comply with Federally mandated standards. This reduced the number of passing opportunities (and the level of service) on most two-lane State highways, including Route 281. It is anticipated that barrier striping on Route 281 can be mitigated with the construction of "turnouts".

COMMUNITY ENHANCEMENT STRATEGY

Caltrans supports Community Enhancement opportunities and are open to working in partnership with Regional Transportation Planning partners in Counties, Cities, and Communities where a State Route is the Main Street, to achieve livable community goals. Community Enhancements including the development of traffic calming improvements to reduce traffic speed and noise, development of context-sensitive improvement alternatives, and development of bicycle/pedestrian facilities to increase the opportunities for non-motorized trips can improve the quality of life in our communities. Safety will continue to be our primary concern in the consideration of the entire transportation network of which community streets are a part.

GOODS MOVEMENT STRATEGY

Route 281 is a major all-weather route serving residents and businesses along the Route and is the collector connecting the area adjacent the southern shore of Clear Lake to Route 29. It is used to transport food and other essential supplies to the residents and businesses along the Route. Consistent with the relatively low truck traffic volumes on this Route, no goods movement improvement projects are planned at this time.

ROUTE 281 RCR

NON-MOTORIZED FACILITIES STRATEGY

The entire constructed portion of Route 281 has 1.2 meter (4') shoulders. Caltrans evaluated this Route utilizing the Bike Compatibility Index¹ methodology that indicated this shoulder width is considered adequate for the generally low volumes of non-motorized traffic using the Route. A Class II Bikeway is proposed in the Lake County Regional Bikeway Plan along the "unconstructed" portion of Route 281.

CORRIDOR PRESERVATION STRATEGY

It is anticipated that Route 281 will remain a 2-lane conventional highway, on existing alignment. No substantial long-term right of way needs are anticipated for Route 281. Some right of way may be needed for storm damage reconstruction, maintenance/rehabilitation activities or safety/operational improvements. Further, if Lake County chooses to upgrade the remainder of Soda Bay Road (adopted but unconstructed Route 281) to State Highway Standards, substantial right of way is likely to be needed.

III. ALTERNATIVE CONCEPTS CONSIDERED

No alternative concepts were considered for Route 281 in District 1.

IV. ROUTE ANALYSIS

DESCRIPTION

Route 281 originates at the intersection of Routes 29 and 175 south of the City of Lakeport, and traverses a portion of the south shore of Clear Lake before terminating at Route 29 between the communities of Kelseyville and Lower Lake. Only the southeasterly 3 miles of the 17-mile long Route have been constructed to State standards and incorporated into the State Highway System. The remaining 14 miles of the Route, (considered unconstructed by the State), is now known as Soda Bay Road and is part of the Lake County Road System. The post mile description of this Route is 01- LAK-281- KP 0.0/27.4 (PM - 0.0/17.0)

ROUTE PURPOSE

Route 281 is functionally classified as a Rural Major Collector. The primary function of the constructed portion of the Route is to link County roads along the south shore of Clear Lake with Route 29.

No communities are located along the constructed portion of Route 281, however the Route serves the Clear Lake Riviera Subdivision.

¹ The Bicycle Compatibility Index, A Level of Service Concept, Implementation Manual, FHWA December 1998

ROUTE 281 RCR

ROUTE SEGMENTATION

Route 281 is segmented below for System Planning purposes:

**TABLE 1
ROUTE 281 SEGMENTATION**

SEG #	LAK 281		DESCRIPTION
	KP	PM	
1	0.0/22.5	0.0/14.0	Rte 29/175 junction to near Konocti Bay. (unconstructed)
2	22.5/27.4	14.0/17.0	Near Konocti Bay to Route 29.

LAND USE

Land use adjacent to Route 281 is generally open space and scattered residential development. Anticipated development adjacent to this Route is expected to include major subdivisions for low-density residential development with some community commercial development. Further development is expected to continue near the south shore of Clear Lake owing to the major resort/tourist destination at Konocti Harbor and the Big Valley Casino on streets and roads served by Route 281.

EXISTING FACILITIES

Route 281 is a two-lane paved conventional highway, with 1.2 meter (4-foot) wide paved shoulders. No passing lanes exist on Route 281. Table II, below, summarizes existing facility characteristics for the Route 281 corridor in District 1.

**TABLE II
EXISTING FACILITY CHARACTERISTICS
ROUTE 281**

SEG #	LAK 281		DESCRIPTION	EXISTING FACILITY
	KP	PM		
1	0.0/22.5	0.0/14.0	Rte 29/175 junction to near Konocti Bay	2-lane conventional
2	22.5/27.4	14.0/17.0	Near Konocti Bay to Route 29.	2-lane conventional

Functional Classification	Rural Major Collector
Eligible for Federal Funding	Yes
Freeway and Expressway System	No
Eligible for Scenic Highway Designation	No
Subsystem of Highways for Extra Legal Loads (SHELL)	No
Surface Transportation Assistance Act (STAA) Trucks Allowed:	No
Strategic Highway Network	No
National Highway System	No
Interregional Road System	No
Public Airports Served	None

ROUTE 281 RCR

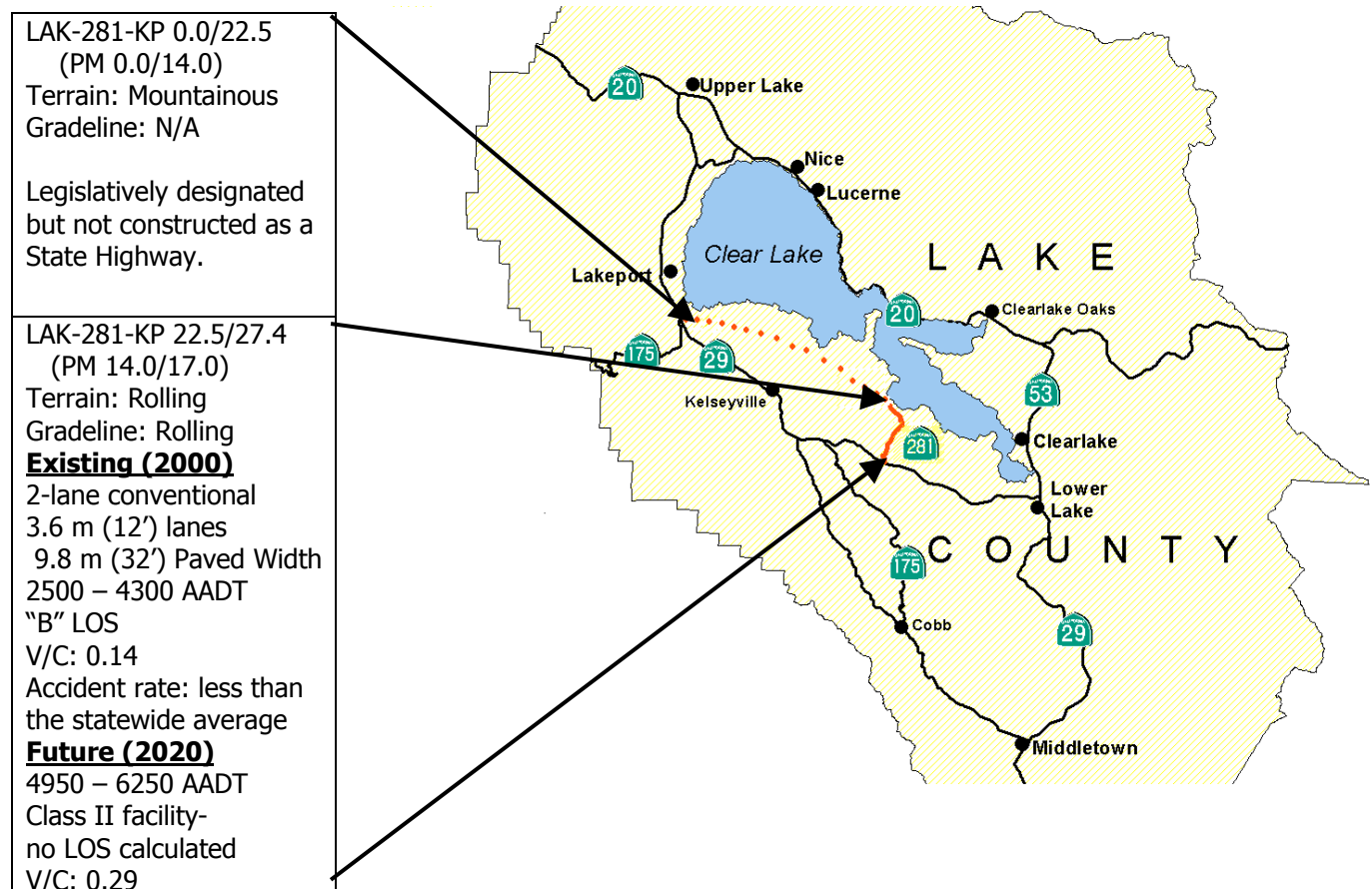
EXISTING FACILITY CHARACTERISTICS (cont.) ROUTE 281

Rail Service	None
Intercity Bus Service	None (Regional Transit Service)
Intersecting State Highway Routes	29 (constructed portion)
Park and Ride Lots	None

OPERATING CONDITIONS

Present and future operating conditions, including traffic volume ranges, level of service, and volume to capacity ratios for both existing and anticipated future conditions for Route 281 are shown on Map 1 below. Further information regarding specific operating and geometric conditions may be found in Caltrans source documents (e.g., the State Highway Inventory, the State Highway Log, and Traffic Volumes on California State Highways, etc.)

**MAP 1
PRESENT AND FUTURE OPERATING CONDITIONS
ROUTE 281**



ROUTE 281 RCR

PROGRAMMED IMPROVEMENTS

There are no programmed improvements in the 1998 State Transportation Improvement Program (STIP). There are roadway and bridge rehabilitation projects on Route 281 totaling \$4 million in the 2000 State Highway Operation and Protection Program (SHOPP).

V. ENVIRONMENTAL CONSIDERATIONS

Principal environmental considerations along Route 281 include:

- The primary environmental consideration for Route 281 is the archaeologically and culturally sensitive sites where local Native ancestors lived and are buried and sacred sites associated with religious activity; and
- Scenic Corridor considerations

VI. REGIONAL TRANSPORTATION PLANNING

The "State Route Corridor Needs" section of the 1996/98 Lake County Regional Transportation Plan authored by the Lake City/County Area Planning Council discusses Lake County's desire to upgrade Soda Bay Road to State standards for inclusion in the State Highway System. While this has long been a Lake County goal, funding for highway projects to accomplish this goal have not been forthcoming.

The Lake County Regional Transportation Plan calls for long term maintenance of State Highway Routes. Maintenance issues were noted as follow:

1. Some improvements are necessary to improve alignment, grade and safety, particularly in substandard areas.
2. Turnouts are needed in some areas to mitigate Federal barrier striping standards.
3. Capacity improvements are recognized as not likely.

VII. AREAS OF CONCERN

The following criteria are used to identify areas of concern on Route 281 based on an analysis of level of service and collision history:

1. A segment is considered to be a "level of service concern" if the concept level of service (LOS) will not be achieved under present or future traffic conditions, or the segment operates at capacity during peak hour.
2. A segment is considered to be a "safety concern" if the total collision rate for a five-year period for that segment exceeds one and one-half times the statewide average, based on similar facilities.

ROUTE 281 RCR

Based on these criteria, no areas of concern were identified on Route 281 in District 1.

VIII. IMPROVEMENTS NECESSARY TO ACHIEVE THE ROUTE CONCEPT

No new facility improvements are necessary to achieve the route concept (2-lane conventional highway on existing alignment) for Route 281. Safety improvements should be made, as necessary and operational improvements should be considered on an exception basis.

IX. TRANSIT AND HIGH OCCUPANCY VEHICLE (HOV) CONSIDERATIONS

Lake Transit Authority has three daily bus trips, one north bound and two southbound, on the constructed portion of Route 281 from Route 29 to the junction of Soda Bay Road and Point Lakeview Road.

Due to the rural nature of Route 281, and relatively low peak hour traffic volumes during commute hours, no HOV considerations are necessary.

X. ACCESS MANAGEMENT

Access management involves managing where vehicles are allowed to enter the highway, to improve highway operations and reduce accidents. Access management concerns are minimal over most of the Route 281 due to relatively low through and turning movement volumes. In some locations, access openings may have less than desirable sight distance, and access management strategies may be beneficial along Route 281.

XI. ADOPTIONS, RESCISSIONS AND RELINQUISHMENTS

New or changed highway routings generally require adopting a new route and rescinding the previously adopted route. The Route may also be relinquished to a city, county or other public entity.

No significant adoptions, recessions, or relinquishments are anticipated on the constructed portion of Route 281 in District 1.